

REMARKS

Favorable reconsideration of this application, as amended, is respectfully requested.

Claims 1, 2, and 4-11 are pending in this application, with Claims 1 and 2 being independent. Each of Claims 1 and 2 stands newly rejected under 35 U.S.C. § 103(a) as being unpatentable over Agari in view of Grolmann. Applicants respectfully traverse.

In response to Applicants' arguments advanced in the Amendment dated April 7, 2003, the Office contended that, from the drawings and specification, there seems to be no actual line contact, but instead, point contact between the spacer and balls. This contention is mistaken, however, as line contact is clearly disclosed in the specification and drawings. See, for example, the contact lines Z shown in Figs. 2A and 3 and the related disclosure of the first embodiment beginning on page 21, and especially at page 22, lines 23-27. As to the circular line contact with a frusto-conical spacer surface in particular, see, for example, the disclosure concerning the fourth embodiment at page 34, lines 6-10.

It is important to bear in mind that cross-sectional views may not illustrate the entirety of the contact

between the spacer and the adjacent balls, since a cross-section provides but a two-dimensional view of the structure. It is therefore necessary to consider the structure from a three-dimensional perspective. Consider, for example, a spherical ball fitted into a cone. The spherical surface of the ball will contact the inner wall of the cone along a circumference (a circular line) around the cone inner wall, thus providing circular line contact.

Contrary to the assertion in the outstanding Office Action, Grolmann does not teach line contact of a frusto-conical surface portion with an adjacent ball. Grolmann's Fig. 3 shows a spacer having frusto-conical cavities 5, but the construction is such that the adjacent balls abut only the end faces of elastic core 7 while being spaced from the adjacent frusto-conical surfaces. See column 4, lines 26-31. There is no line contact with the cavity walls. Similarly, the disclosure of the Fig. 8 spacer at column 4, lines 4-13 mentions only contact of the balls with the bottom faces 6 of the frusto-conical cavities. There is no line contact.

Given that Grolmann fails to teach or suggest concave spacer surfaces in line contact with adjacent balls, it is apparent that the hypothetical combination of Grolmann with

Agari advanced in the rejection would not produce Applicants' claimed invention. Accordingly, the outstanding rejection under § 103(a) is untenable and should be withdrawn.

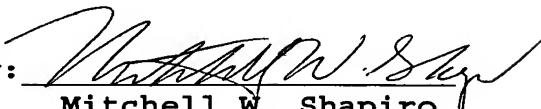
This application is clearly in condition for allowance, and it is respectfully requested that the application be promptly passed to issue.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested.

Respectfully submitted,

MWS:lat

Miles & Stockbridge P.C.  
1751 Pinnacle Drive  
Suite 500  
McLean, Virginia 22102  
(703) 903-9000

By:   
Mitchell W. Shapiro  
Reg. No. 31,568

September 8, 2003